

SYSTEM AND METHOD FOR JOINT MAXIMAL RATIO COMBINING USING TIME-DOMAIN BASED SIGNAL PROCESSING

Abstract

A spatial signal processing system and method are provided to optimize the received signal-to-noise ratio (SNR) at a first radio communication device based on the transmit filter at another radio communication device. Using an estimate of the channel derived from a signal received at one device from another device, an iterative process is provided to determine complex weights for one or more tapped delay-line transmit filters at each of two communication devices that optimize the received SNR.